

### **Amendments to the Claims:**

This listing of claims replaces all prior versions, and listings, of claims in the application:

### **Listing of Claims:**

1-10. (Cancelled).

11. (Previously Presented) An apparatus for determining a speed indication signal indicating a speed of a wireless mobile telecommunication device relative to said apparatus, wherein said apparatus determines said speed indication signal from a sequence of transmit power control commands sent by said wireless mobile telecommunication device to an access point in a wireless telecommunication network for controlling, in use, a transmit power of a radio signal transmitted by said access point to said wireless mobile telecommunication device, wherein said apparatus comprises:

a memory for storing said sequence of transmit power control commands;

a logical filter circuit for determining a radio signal strength minimum in said radio signal at a location of said mobile telecommunication device by detecting if a predetermined number of consecutive transmit power control commands from said sequence of transmit power control commands each comprise either an 'up' or 'down' transmit power control command.

12. (Previously Presented) The apparatus recited in claim 11, wherein said logical filter circuit is adapted to identify if at least four consecutive transmit power control commands each comprise an 'up' transmit power control command by logically comparing the value of each of said at least four transmit power control commands.

13. (Previously Presented) The apparatus recited in claim 12, wherein said logical filter circuit is further adapted to identify a start of said at least four consecutive transmit power control commands by comparing if a first of said at least four transmit

power control commands is not equal to a preceding transmit power control command in said sequence of transmit power control commands.

14. (Previously Presented) The apparatus recited in claim 11, further comprising:  
a speed information control device for providing a speed estimation signal for said wireless mobile telecommunication device; and

a Doppler frequency measurement device for determining a Doppler speed signal for said wireless mobile telecommunication device, said apparatus being adapted to provide said speed estimation signal in dependence on said speed indication signal for speeds of said wireless mobile telecommunication device below a predetermined threshold and on said Doppler speed signal for speeds above said predetermined threshold.

15. (Currently Amended) An apparatus for determining a speed indication signal indicating a speed of a wireless mobile telecommunication device relative to said apparatus, wherein said apparatus determines said speed indication signal from a sequence of transmit power control commands sent by said wireless mobile telecommunication device to an access point in a wireless telecommunication network for controlling, in use, a transmit power of a radio signal transmitted by said access point to said wireless mobile telecommunication device, wherein said apparatus comprises:

a memory for storing said sequence of transmit power control commands;

a logical filter circuit for determining a radio signal strength minimum in said radio signal at a location of said mobile telecommunication device by detecting if a predetermined number of consecutive transmit power control commands from said sequence of transmit power control commands each comprise either an 'up' or 'down' transmit power control command;

a speed information control device for providing a speed estimation signal for said wireless mobile telecommunication device; and

a Doppler frequency measurement device for determining a Doppler speed signal for said wireless mobile telecommunication device, said apparatus being adapted to provide said speed estimation signal in dependence on said speed indication signal for speeds of said wireless mobile telecommunication device below a predetermined threshold and on said Doppler speed signal for speeds above said predetermined threshold;

~~The apparatus recited in claim 14,~~ wherein said speed information control device comprises a speed tuning device, said speed tuning device operative to perform the steps of:

determining a tuning value, said tuning value being a division of said Doppler speed signal over said speed-indication signal, said tuning value being filtered with a long-time constant; and

providing, in dependence of a predetermined threshold ( $V_{th}$ ), for determining of said speed estimation signal:

speed-related information, in dependence of said tuning value, at speeds below said predetermined threshold ( $V_{th}$ ); and

a tuned Doppler measurement signal at speeds above said predetermined threshold ( $V_{th}$ ), said tuned Doppler measurement signal being said Doppler measurement signal multiplied by said tuning value.

16. (Previously Presented) A method for determining a speed indication signal indicating a speed of a wireless mobile telecommunication device relative to a stationary wireless access point, said method comprising the steps of:

determining said speed indication signal from a sequence of transmit power control commands sent by said wireless mobile telecommunication device to said access point for controlling, in use, a transmit power of a radio signal transmitted by said access point to said wireless mobile telecommunication device, wherein said setp of determining comprises the steps of:

storing information related to at least a portion of said sequence of transmit power control commands; and,

determining a radio signal strength minimum in said radio signal at a location of said mobile telecommunication device by detecting if a predetermined number of consecutive transmit power control commands from said sequence of transmit power control commands each comprise either an 'up' or 'down' transmit power control command.

17. (Previously Presented) The method recited in claim 16, wherein said step of determining a radio signal strength minimum comprises the step of identifying if at least four consecutive transmit power control commands each comprise an 'up' transmit power control command by logically comparing the value of each of said at least four transmit power control commands.

18. (Previously Presented) The method recited in claim 17, wherein said step of determining a radio signal strength minimum comprises the step of identifying a start of said at least four consecutive transmit power control commands by comparing if a first of said at least four transmit power control commands is not equal to a preceding transmit power control command in said sequence of transmit power control commands.

19. (Previously Presented) The method recited in claim 16, further comprising the steps of:

determining a Doppler speed signal for said wireless mobile telecommunication device; and,

providing said speed estimation signal in dependence on said speed indication signal for speeds of said wireless mobile telecommunication device below a predetermined threshold and on said Doppler speed signal for speeds above said predetermined threshold.

20. (Currently Amended) ~~The method recited in claim 19, further comprising the steps of:~~

A method for determining a speed indication signal indicating a speed of a wireless mobile telecommunication device relative to a stationary wireless access point, said method comprising the steps of:

determining said speed indication signal from a sequence of transmit power control commands sent by said wireless mobile telecommunication device to said access point for controlling, in use, a transmit power of a radio signal transmitted by said access point to said wireless mobile telecommunication device, wherein said setp of determining said speed indication comprises the steps of:

storing information related to at least a portion of said sequence of transmit power control commands; and,

determining a radio signal strength minimum in said radio signal at a location of said mobile telecommunication device by detecting if a predetermined number of consecutive transmit power control commands from said sequence of transmit power control commands each comprise either an 'up' or 'down' transmit power control command;

determining a Doppler speed signal for said wireless mobile telecommunication device;

providing said speed estimation signal in dependence on said speed indication signal for speeds of said wireless mobile telecommunication device below a predetermined threshold and on said Doppler speed signal for speeds above said predetermined threshold;

determining a tuning value for a speed information control device, said tuning value being a division of said Doppler speed signal over said speed-indication signal, said tuning value being filtered with a long-time constant; and,

providing, in dependence of a predetermined threshold ( $V_{th}$ ), for determining of said speed estimation signal:

speed-related information, in dependence of said tuning value, at speeds below said predetermined threshold ( $V_{th}$ ); and,

a tuned Doppler measurement signal at speeds above said predetermined threshold ( $V_{th}$ ), said tuned Doppler measurement signal being said Doppler measurement signal multiplied by said tuning value.

\* \* \*